Learning Gas. R.

## ANNUAL ADDRESS

BEFORE THE

# ALUMNI ASSOCIATION

OF THE

## UNIVERSITY OF THE CITY OF NEW YORK

MEDICAL DEPARTMENT.

BY

#### JAMES R. LEAMING, M. D.,

OF THE CLASS OF 1849,

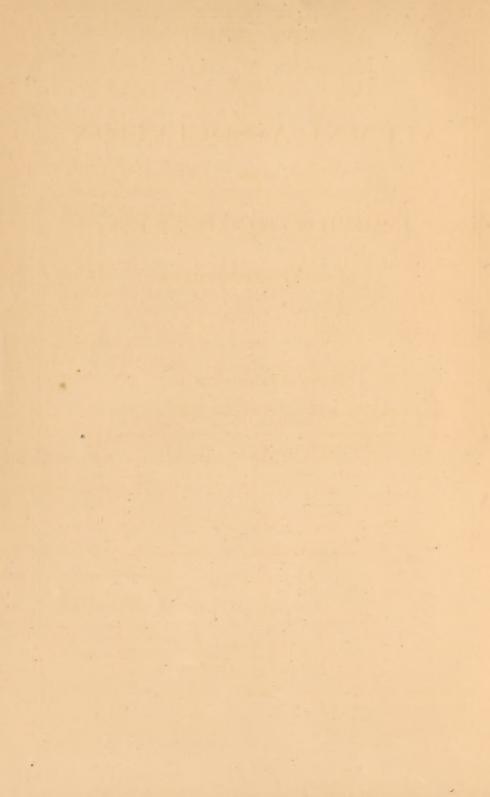
Professor of the principles and practice of medicine in the woman's college of the new york infirmary, attending physician to st. luke's hospital, consulting physician to the home of rest for consumptives, fellow of the

N. Y. ACADEMY OF MEDICINE, MEMBER OF THE N. Y. PATHO-LOGICAL SOCIETY, AND OF THE N. Y. CO. MED-ICAL SOCIETY, ETC., ETC., ETC.

PUBLISHED BY ORDER OF THE ASSOCIATION.

NEW YORK:
G. W. CARLETON, 1122 Broadway.

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## ADDRESS.

MR. PRESIDENT AND FELLOW ALUMNI—It devolves upon me to welcome you, at this anniversary, to the new home of your Alma Mater. There is something peculiarly touching and thought suggesting in this re-union—bringing together again those who, in days gone by, found themselves companions in the acquirement of knowledge in that profession which has since been the highest object of their ambition, and placing them side by side as of yore.

Our minds go back to that time—the beginning of our professional life—and it may be with some of you as it is with me, twenty years and more. Many who graduated in that class have passed from earth, others of you have struggled your way up the rugged hill of fame to conspicuous positions; all have been toiling in the good work of humanity, and, in so doing, have been accumulating large stores of knowledge, which you hold in common with the profession and for the profession. Others of you but yesterday received your diplomas, and have just commenced your life duties. But whether you have grown gray in honorable service, and come with stained weapons, and battered shields, and wide reputations, or whether your armor be bright with unuse, no rust stains of experience, with unfrosted locks, and faces radiant with the expectation of youth, we bid you a hearty welcome.

I well remember the October day, in 1847, when I became a medical student, and an inmate in the north tower room of the University at Washington Square. Standing by its high window and looking northward the eye wandered among straggling buildings over vacant lots to a long row of houses gleaming white in the sun and running well down to the Hudson river. They were new then and were pointed at with pride by citizens and were known by the sounding title of "London Terrace." All else from the elevation of that window suggested

brick and mortar, delving down into the earth and blasting out rock-all to be done, something begun but nothing finished, as it is ever in a new city in the new world. The reservoir at Fortieth street raised its square and massive front like a belligerent fort, to arrest the march of improvement and defend the wild rocks of the upper island from the encroachment of man. More than this the eye took not in, and, certainly, it seemed that the time would be long ere the newness of the scene would have passed away, and age have been stamped upon the prospect.

But place yourself at that same window now, and how altered is all that is seen. You look in vain for "London Terrace," so prominent twenty years ago. The wilderness of a great city, compactly built up, rows of sumptuous dwellings filling out solid blocks, teeming with population, now hide the view of the once pretentious row, and if you wish to see "London Terrace" you must go up to Twenty-third street and there find it entirely outdone by its upstart neighbors. But you will be guided in your search by a line of remarkable edifices, stretching from river to river, and lifting their tall heads high above the rest of the city. The Young Men's Christian Association building, the Fifth Avenue Hotel, Booth's Theatre, and the Grand Opera House are now the prominent landmarks.

Fifth Avenue, which, twenty years ago, had but a few residences scattered along its lower commencement, is now one of the grandest streets in the world in length and structural elegance; and so it is with all the beautiful streets on and around Murray Hill. The reservoir can no longer be seen, for it has been surrounded and captured, as it were, long since by the hurrying architectural advance. Should you seek for it you will find it quietly hidden away at Fortieth street, its uncouth walls shamed by the magnificence of its aristocratic surroundings, and it has coaxed even a few vines to crawl up its rough sides as an attempt at ornamental conciliation. Twenty years ago from its top southward you saw the smoking city far below you; now the sight is limited to the next street. Then the vision stretched north in a vista up to the acqueduct bridge, over shapeless rocks covered with shanties; now the stately piles of brick brown stone and marble extend to the Central Park, where green covered hills are reflected in beautiful lakes, and where

float the graceful swan and the swift gliding gondola. All of these wonders, which seem to have arisen as from the touch of the wand of the magician, are solid evidences of material progress.

Notwithstanding that the country has just passed through a cruel and desolating war, the commerce, trade and wealth of this city keep step with its onward march; and if we consider her banking houses, exchanges, insurance offices, publishing houses, schools, daily papers—supplying the wants of a people hungry for intellectual food—we must conclude that the progress in wealth is more marvellous, because real, than the fairy tales of the Arabian Nights' Entertainment.

The yearly exhibitions of paintings, the splendid collections in private houses and public halls of native as well as of foreign art, attest to our progress in æsthetics.

In the parent edifice at Washington Square was elaborated by actual experiment the new born thought of the electric telegraph —and its author was once the Professor of Chemistry. There, too, was perfected the discovery of Daguerre, permanently fixing the shadows of things till the human face expressing emotion grew immortal upon the polished plate, and the lineaments of those we loved, such as no limner before could catch or convey, became ours to carry with us, to be looked at with affection when the dear object was far from us or long in the grave. The discoverer of this process, Dr. Draper, still honors the Medical Department by presiding over its destinies, giving grace and dignity to its counsels and honor to its name at home and abroad. In my day there was still in the south tower room of the University building the plank filled with bullets which had been shot there by Colt, in his experiments while perfecting the revolving pistol. So we see that that building and the University are connected with the birth of some of the most astonishing scientific discoveries of modern times.

If this marvellous progress has taken place in material wealth, the arts, mechanics and science, has there been no corresponding progress in medicine? There are those who affirm that there has been none; and the profession in their reticent dignity have not deigned to make plain the truth. It is not unusual to hear the grave charge against our profession that, while there

has been progress in every other department of knowledge, there has been none in medicine. Either this is one of the hugest falsehoods ever known or it is one of the most marvellous facts in our existence. Men of true science make no such charge. It is the ignorant charlatan alone, who, using the columns of the daily press as a mouthpiece, sends this calumny on its travels; and where none assert the truth, honest folk, even among those of refined taste and superior education, may come to believe a lie to their damage in health and life. In their behalf, as well as for the sake of the divine art, I shall attempt to show that medicine has made progress, even in advance of other branches of knowledge.

If we go back one hundred years we are amused at some of the pretensions of the medical men. The gold snuff box and the gold-headed cane were in keeping with the punctilious manners and stately bearing of the fashionable men of the times. Even the leviathan of literature, Dr. Johnson, had his gold-headed cane-but he acknowledged the great worth and the superior knowledge of medical men. Poor Goldsmith, one of the most charming writers of that brilliant literary period, was a doctor, but he lost his only patient by getting into a passion, because she burst out laughing at his ludicrous appearance when he came into the sick room with his pompous manners and traditional accompaniments. Goldsmith could write divinely, both in poetry and prose, but he lacked some of the solid qualities that were demanded of the physician. Cullen, the eloquent apostle of nosology, and his brilliant but unfortunate rival, John Brown, set the world a wrangling as to the merits of their systems. Huxham, in a less prominent position, left his impress upon the times by one of the best monographs on fevers ever written. He also made an excellent description of what we now call diphtheria. About the same time this was also done by Dr. Bard, of New York. Breton. neau refers to his monograph as giving an exact history of the disease. This reminds us that Dr. Bard was the physician of President Washington and also that Bretonneau expresses the belief that the great man died of diphtheria. John Hunter was a man of remarkable genius, and led the learned men of his day in the study of natural history.

These gentlemen were all looked upon by their literary brethren as leaders in thought, but to none of them will the future world accord such high honor, and, perhaps, no other man will ever be privileged to put mankind under such deep obligations, down to the end of time, as has been done by Jenner, the pupil of Hunter-certainly, that fairer portion with whom beauty is an inheritance and comeliness a birthright, will hold him in eternal remembrance. These facts it is well to consider at this day, when half educated or ignorant men attempt to depreciate the greatest boon yet vouchsafed to man. Vaccination has not only saved from loathsome death one tenth of the people directly but it has snatched many more from the jaws of consumptionfor it is true that many who recovered from the dreadful disease, variola, were made liable by it to phthisis, not to mention the multitudes saved from unsightly deformity. The prejudices against this remedy are fast dying out, and when the time comes, as it surely will, that this great gift shall be rightly understood as well as properly appreciated, the deadly scourge of the world will become but a terrible tale of the past.

What has Surgery done in the last sixty years? Has it not raised itself from an ignoble art to the highest point of excellence? Among the great names—Abernethy, the two Clines and Sir Astley Cooper-our own Mott ranks with the first, for he took a leading part in that marvellous progress when study. profound knowledge, decision, courage and will, with genius of the highest order, were necessary to success. Mott, from careful dissection, following Colles in the surgical anatomy of the neck, came to the conclusion that the great arteries supplying one half of the head and part of the thorax could be safely occluded, and the circulation be reëstablished through the anastomoses of other channels. He told his colleague, the celebrated Wright Post, his belief on this subject. It was not long before a patient came into the New York Hospital with what proved to be an aneurism of the subclavian artery of the right side, near the bifurcation. Dr. Post placed the case in Dr. Mott's hands, and he operated successfully, proving by demonstration the truth of his theory.

Professor Granville Sharp Pattison used to relate in his lectures that, after the news came to London of Mott's operation,

he was walking in company with Sir Astley Cooper, who asked him if he had heard of the great operation which his pupil, Mott, had just performed in New York, and being answered in the affirmative, said, "Mott is the Napoleon of surgery; I would give all that I have ever done to have been the author of that operation." One other anecdote will illustrate Mott's carefulness in keeping up his knowledge of anatomy. Dr. Post and he were in consultation in a case of agonizing neuralgia of the foot, when it was proposed to cut down upon and exsect a portion of the peroneal nerve; this was agreed upon, when Mott asked Prof. Post the relation of the nerve to the artery and vein at the malleolus, and Prof. Post said, "I don't know." "Neither do I," said Mott; "but I will know." He went to the cadaver, and when he came to operate upon the patient he cut down upon the nerve and saw neither the vein nor the artery, for he had nothing to do with them. He never operated upon the living without refreshing his memory by first operating on the dead body, and this accounts for his wonderful skill and neatness. He was another proof of the adage that there is no excellence without labor, and it would require a volume to properly speak of his great operations. Our city claimed other surgeons-Kearney Rodgers performed successfully the operation of tying the subclavian artery within the scaleni muscles, in which Sir Astley Cooper failed, as related by Mott. Reed, of Rochester, after patient study of the anatomy of the muscles and ligaments of the hip joint, taught us to reduce its dislocations by easy manipulation. It was some time before our brethren across the water were willing to award to us priority, but it is now generally acknowledged that Reed deserves the honor of the discovery.

Our great Civil War placed our surgeons in the front rank of military surgery, and if Baron Larrey was of more value to Napoleon than thirty thousand men, as the great captain asserted, how shall we estimate our own surgeons, who, in actual and practical knowledge on all branches of surgery, are infinitely superior to Larrey. This is not boasting. Larrey acquired his store of knowledge from his own vast experience. Our surgeons had the benefit of his as well as that derived from the Crimean and Italian wars which occurred since. And now

we are collating and making available this knowledge, supplied from so many competent sources, gathered from a four years' war, carried on over a space of country so vast, with a climate so varied, with numbers engaged so great, with so many sick and wounded, both on the battle-field and in hospitals, that we wonder at its comprehensiveness, and doubt not that when all shall be placed before the world it will contain the most available knowledge on these subjects that has been put on record.

But if the great surgeons of the past age were to-day to begin their professional life, or if another person with another name, yet having all the knowledge of Mott without his reputation. should put out his name for competition, he would find himself behind the majority of the young surgeons who are aspirants for fame in much that is now essential to success, for it is harder to unlearn what has once been believed than to primarily acquire much more new thought. We honor the great men of the past for what they have done; we own our indebtedness to them for increased knowledge, and are quite certain were we placed in their situation we should not have exceeded them; yet we began where they left off, and have been able, by the power of greater enlightenment, to reject as untenable and false much that they cherished as stamped with the divinity of truth itself. We are enabled to press on by the light of their experience, through the darkness of doubt to the sure elevations of certainty.

No one says that this department of medicine has not made progress. It is easy for cavilers to acknowledge the progress of surgery, and deny that of medicine. But wherein is the excellency of modern surgery? It is not in knowledge of topical anatomy, for that was at the fingers' embs of those of the past age. No modern surgeon had a better memory or a greater store of facts at his instant command than Valentine Mott, and his fertility of invention has never been surpassed. The difference is great in favor of the modern surgeon, but it is owing to that part of knowledge which is essentially medical, in contradistinction to what is surgical. It is what modern surgery has borrowed from medicine that places it far in advance of that of the day of Mott's highest renown. I am sorry that it is true that a very few surgeons have been seduced by fashionable in

regulars to lend the assistance of their name and reputation to what they know to be false. We say have been, for those surgeons are of the past, and if they still linger in the way, they seem to be hurrying through by-ways to the night of obscurity; they will never be reproduced—they will have no successors—and so we bid them adieu.

Having shown that surgery which is occult, and subject to the judgment of the unlearned, owes its position to the progress of general medicine, let us look at the sister branch of chemistry; has there been progress here? Born of the old delusion of alchemy, it has ceased to be shrouded in mystery, or to deal with the impossible, seeking the assistance of the dark spirits of the nether world. Now it appears in the broad light of the sun and in the glowing heat of the furnace, dissolving the elements and discovering the secrets of the creation of fire, earth and water, and going beyond, it has discovered the metallic bases of much that was considered earthy, till the list of metals has been increased from a few, which could be told upon the fingers, to scores, and has demonstrated their valuable use in the arts. It has discovered the gaseous elements of this solid globe; has shown us the method of creation, and what may be that of dissolution. It has found out new elements of mysterious power, and although we do not "attempt to call up spirits from the vasty deep," vet we do call upon that mysterious agent which may yet "put a girdle round the earth in forty minutes," and it answers, as in Manfred,

"I am the rider of the wind,
The stirrer of the storm;
The hurricane I left behind
Is yet with lightning warm;
To speed to thee o'er shore and sea
I swept upon the blast;
The fleet I met sailed well, and yet
'T will sink ere night be past."

Chemistry has taught us the intimate conditions of the component elements of our bodies. By it we are able to understand the processes of digestion, and much of assimulation—the perfection of the circulation of the blood, and of the vitalizing act of respiration. It has taught us, in the selection of food, to avoid mistakes and to prepare reme lies of the most subtle power and certainty of action in the cure of diseases. Ignorance itself bows to this knowledge, for every quack advertisement claims its nauseous and useless compound to have been the result of chemical science. Some will and do attempt to separate chemistry from medicine. But who, let us ask, are the votaries of this science? Are they not those educated as physicians, whose chief glory is medicine? Would there ever have been or would their be now, any chemistry, were it not for the needs of medicine?

We point to the names of our great chemists with the same pride that we do to those of our great surgeons. We remember that Hare and Bird were Americans, and we have an honest pride in our own Draper. We claim an interest in their reputation, and place it to the credit of medicine. All the other sister sciences in like manner make their continual contribution to the parent medicine: we need not particularize further.

If next we take up for examination some of the specialties of medicine, as that of the eye, for instance, shall we ask has there been any progress? What was the condition and status of this specialty twenty years ago? Then the little institution in Mercer street was all that we had. It is true it was an excellent beginning, and did its good work in building up the knowledge which has culminated in the introduction of the ophthalmoscope as a means of a more sure, as well as a more scientific diagnosis. The introduction of this instrument to the use of this specialty has lifted at once its position from doubt and experiment to exact and unfailing science. It has allied medicine and optics in inseparable union, and while medicine is vastly assisted optics is ennobled, for its usefulness and value to the human race are made so demonstrable that what it had done before seems, in comparison, like toys for the child's pastime. Instead of one small house, now there are several large institutions, filled with patients, and the gentlemen who give their time for the relief of the poor have achieved reputations both in science and medicine. Yet this knowledge is not confined to those specialists nor to those institutions set apart for their use. Each dispensary has its department for the diseases of the eye and ear, and in our hospitals for general diseases are

men of special knowledge on this subject. If the specialty of the eye and ear has increased, and made available all that we know of the laws of light and vision, so also has the stethoscope in diseases of the chest the laws of sound. Laennee, the great discoverer of auscultation, published the second edition of his immortal work in 1826, and went to his country home to die of the disease he taught the profession to understand. Louis took up the subject, and his student, George P. Cammann, brought home to this city, in 1831, a knowledge of this science, and put it in practice, and conjointly with Alonzo Clark proluced the article on auscultatory percussion. This was really a great advance in knowledge. Then Dr. Cammann gave us an article on the anastomoses of the blood vessels of the lungs, and we are only now appreciating fully the discovery. Afterwards he gave the profession the binaural stethoscope, the perfection of mechanism for the purpose intended, and it carries his name wherever auscultation is practiced. His knowledge of acoustics and habit of analyzing sound, with the marvellous acuteness of his practiced ear, made his teaching of great benefit to the many physicians and students who sought his valuable instruction at his dispensary clinics. Chest acoustics have become a necessary part of our primary studies. The beautiful laws of light and sound are cognates, and the knowledge of one makes it easier to acquire the other. With the one we are enabled to detect all the errors of vision, and where relief is possible to apply it; with the other, with wonderful certainty we mark out, define and characterize the very beginnings of diseases of the respiratory organs, or detect the first structural or functional change in the great organ of circulation—and, knowing the defect, we are enabled to apply more certainly the remety. It accomplishes the wish of the old philosopher, and puts a window in the chest, through which we may view the secret workings and springs of the mysterious cause of life.

These two specialties have made the sciences their handmaids, and we admire the beautiful adaption; but others, without this brilliant assistance, have still made won lerful progress—the direct result of the application and close study of men carnest in their work and untiring in their devotion to devise means for the relief of suffering humanity. The progress of knowledge in the

specialties is wonderful beyond belief, and yet it is open to the understanding and appreciation of even the unlearned upon medical subjects. Every one must acknowledge the progress in the specialties of medicine. We divide the subject of medicine into parts, giving to men of general and enlarged views the particular and concentrated attention of a lifetime to definite points, and thus produce an effectiveness that must greatly enlarge our knowledge of hidden laws and ultimate principles. The result of all this is wonderful progress. But medicine is a congeries of specialties, aided and assisted by the adjunct sciences.

The general practice of medicine in New York—and we specify this city, not from any invidiousness, but because what has taken place here is typical of what has occurred in the United States or in the world—bas made notable progress. We have shown that the progress of the specialties has helped general medicine. An advance in special knowledge is not confined to the specialist; in the general societies he reads his elaborate article on special study, and then it becomes a part of the general sum contributed. The microscope, stethoscope, ophthalmoscope and laryngoscope are means by which we interrogate the conditions of the health of the body; they give us an intimate knowledge of the functions and organic changes of vital organs. The young physician of to-day commences practice with knowledge superior to that of the most learned of the past age. So, if we go back to the beginning of the present century, we will find the general condition of the profession at that time vastly different from what it is at present, in its methods and facilities in making diagnosis, in the remedies used, and the success of their application. There has been almost a revolution in all the ideas of hygiene in treating the continued fevers, the exanthema, and diseases of a general epidemic character; and this the profession has wrought out of its own experience, neither assisted nor impeded by any outside influence, associations, circumstances or accidents. It is the legitimate outgrowth of steady advance; many minds of educated power are directed with energy upon one subject, and that subject, from the necessities of the case, inherent in the life of man-one that can never be wholly and perfectly understood. The approach is by gradual advances, always nearing perfection and never attaining to it—like those hypothetical parallel lines, always approaching each other but never to meet. The great system of rational medicine is founded on induction and the continual interrogation of nature as to her secret processes, and this renders it positively necessary that progress should be gradual, according to the powers of man to investigate, comprehend and accept of truth. On the contrary, the false systems have had their birth from the brain of one man, and are brought forth perfect at their very beginning. Let them attempt progress, and, like a child's castle of cards, they tumble into ruins. So it is in the chimera of Hahneman—when his followers gave up the doctrine of infinitessimal doses the very foundations of absurdity were undermined, and the whole system is now falling down about the ears of its votaries.

He who has stood upon the banks of a great river, like the father of waters, and watched its rolling flood, bearing with irresistable power on its bosom, loaded steamers, and in its depths uprooted trees, spoils of mighty forests, must have been impressed with a deep sense of awe. It has gathered these trophies of its power from its far-off beginnings, thousands of miles away. The mountain spring has been increased by every rivulet adding to its volume and it has become the mighty flood, majestically moving onwards, till it pours its treasure and its accumulation into the great ocean; while bubbles, straws and rubbish near the shore are noisily running about in a circle, never advancing, with all their showy haste, and are momentarily dashed on the shore, left among the weeds, to be followed by others in a life as ephemeral. So it is in medicine—the progress of the great stream is forever onwards; its momentum is the accumulation of agrs. Every one of the long past years helps to swell its volume and its force; every contribution, great or small, adds something. Not only the mountain rivulet, fed by the clear springs of pure science and truth, but even the ooze and slime out of the stagnant marsh of quackery finds there its use, and marks the great progress of medicine by its filthy deposits upon the shore.

To estimate properly the entire scope of this subject, let us ask what is the aim of medicine? Do we expect to conquer death? The decree has gone forth that all men must die—it is

the most certain thing in earthly events. Life is an extension of being, a reprieve from the sentence of death. The object of the physician is to lengthen the reprieve, and, by relieving the suffering of humanity, to render it capable of usefulness. The inspired writer speaks of the allotted time of man as "three score years and ten." I take it for granted that this does not mean that seventy or eighty years is the natural limit, but that it is the extent of the life of man under all his disabilities. If the laws of health were perfectly understood and faithfully lived up to; were our knowledge of physiology, pathology, physical signs, and the adaptation of remedies to diseases perfect, life would be individually and collectively extended. The inspired book tells us that, before the flood, man lived to a great agethe longest individual life being nine hundred and sixty-nine years. If the length of the year calculated by the ancients was but three months, as is stated, we can comprehend the length of their great age, for Methuselah only lived, according to this calculation, two hundred and forty-two years and tilree months. About two hundred years of our computation would seem to have been the natural term of life of men before the flood; it was shortened afterwards by the Divine will in weakening the stamen vite, multiplying the causes of disease, and, perhaps, by increasing the number and virulence of the diseases themselves.

The average time of life is being gradually extended—especially among people who have been instructed in the laws of health, and are under the medical supervision of intelligent and careful physicians. The average length of life in Belgium is greater than in other countries where the health of the people is not under the care of the state. Bacon says, "We divide medicine into three parts of offices, viz.: 1st, the preservation of health; 2d, the cure of diseases; and 3d, the prolongation of life. For this last part physicians seem to think it no capital part of medicine, but confound it with the other two; as, supposing that if diseases be prevented, or cured after invasion, long life must follow, of course. But, then, they do not consider that both preservation and cure regard only diseases, and such prolongation of life as is intercepted by them; whence the means of spinning out the full thread of life, or preventing, for a sea

son, that kind of death which gradually steals upon the body by simple resolution, and the wasting of age, is a subject that no physician has treated suitably to its merits. Let none imagine we are here repealing the decrees of fate and Providence by establishing a new office of medicine: for, doubtless, Providence alike dispenses all kinds of deaths, whether they proceed from violence, diseases, or the course and period of age—yet, without excluding the use of remedies and preventions, for art and industry do not here overrule, but administer to nature and fate."

Is it possible to restore the natural time of the life of man to what it was before the flood? Let us look for a moment at the following facts: At eight years of age the child goes through remarkable changes; the digestive organs are made capable of receiving and of using more stimulating forms of food, and the heart suddenly enlarges; at sixteen the heart again enlarges and corresponding changes take place in the system; at twenty-four years of age, or three times eight, these changes are nearly completed, and the man is fully developed at twenty-five, which may be considered as the full time of his growth. It is said that a law prevails among plants and animals according to which the time of their growth is one eighth of the time of their life, and eight times twenty-five are two hundred, which may be considered as the possible time of man's existence, as it is that of the recorded life of the antedeluvians. With the flood came a multitude of diseases, attacking man from his earliest infancy, so that even when he escapes death, while passing through the period of growth, it is with a stumen vitue so weakened that seventy or eighty years has come to be considered the allotted time on earth. Yet there are many cases on record, of undoubted authenticity, where individuals have attained almost to the time of two hundred years, the antedeluvian period, the natural limit of the life of the perfect healthy man. Thomas Parr is one instance, and, although not of the longest reported life, is yet one of the best authenticated—for the great Harvey made the post mortem examination, and has left us an account of the healthy condition of all the organs of his body, so that we may well believe that had it not been for the ill judged kindness of King Charles and his Court, he might have filled out his two hundred years, for he was cut off before his time, dying of surfeit.

It is the object of medicine to extend the life of man as far as possible towards the natural limit, and to do this the hygiene must commence at the earliest moment, and be guided by enlightened experience and thoughtful wisdom. As the child is nurtured so will be the vis vita of the adult. Some disabilities are inherited, and some are the result of acquired diseases. These may be unavoidable, but are much ameliorated by proper hygiene and the intelligent administration of medicines. The child of healthy parents, with properly adapted food and other hygienic conditions, as nearly perfected as possible, will not only pass through what are called the necessary disorders of infancy without acquiring diseased tendencies, but the stamen vita will be so vigorous and corroborated that it may scarcely vary from a healthful standard, and so continuing, the individual may arrive at much greater age, and the time of usefulness be extended. How far have we progressed in this object? Vaccination has been introduced since the beginning of this century, and has incressed the average life of man; the management of disease is far more successful in prolonging life now than half a century ago; there is much more of pure air and proper attention to the needs and habits of the digestive system in the selection of food and in the manner of preparing it. How very different are our dwellings, as regards ventilation and heat, and the accommodation for bathing. Croton water, so indispensable now, was not even thought of then. The profession has ever given its powerful influence for all the measures of public utility, increasing the general health. The subject of sewage has received its earnest and intelligent attention. How has the health of Paris been improved since the time of Louis Philippe, when it was the most insalubrious city in the world? Now it is one of the most healthful. This was brought about by the labors of one physician, who, in his enthusiasm, personally traversed that great labyrinth of noisome stench, and mapped out, so as to exhibit to the eve where the sewers were most defective, agreeing with the localities where low fevers and contagious diseases were most prevalent. These facts aroused the authorities, and the whole subject of sewerage was placed under the direction of competent engineering authorities, with the result of making Paris the best sewered

city in the world. New York has not yet attained to this, but may she not look forward to that hopeful day when partizanship will give way to sanitary improvement? When we look at our Croton water, and our beautiful Central Park, surely we may hope for this consummation as certain and soon. When it shall be well done, so that the tides shall wash out the sewers into each of the deep rivers on either side, and the flood of Croton shall clean them down from the centre; when the tenement house system shall be changed, so as to agree with the teachings of sanitary science, and a health police be wisely and firmly established, New York may be the most healthful city in the world.

Not only have we improved, and are improving in sanitary science, but we have learned much of the use and proper administration of drugs. We have new and more potent remedies, and we have learned to use them with a more sparing hand. Large and indiscriminate dosing is of the past. When Dr. Martyn Paine came to New York, being still a young man, he commenced the treatment of disease by withholding medicine, except when it was plainly indicated, and then applied it with successful wisdom. The foremost men of that day were astonished, and prophesied that the innovator would have but a short professional life, so strongly were they wedded to the old way; but, instead, he gathered about him a host of warm friends and admirers, and made his mark upon the practice of the time, and the day of indiscriminating dosing passed away forever. This was before the day of little pills.

Twenty-two years ago the provisions for typhus fever patients at the Emigrant Hospital were far different from what we have now. I remember well the temporary rooms in which the patients were crowded in the winter of 1848—long, narrow and with low ceiling, that you could reach with your hand. Was it wonderful that the mortality was frightful? The hygienic conditions were as bad as possible, and the treatment by medicine but illy understood. The young men who went there, and to Bellevue and Quarantine, full of hope and honorable ambition, laid down their lives as sacrifices to their love of science. How great was the mortality of cholera in 1832, and again in 1849, and would have continued to have been so, had not our investigations led us to find the cause of the disease, or

wherein the disease consisted. Just as soon as that fact was fully comprehended it was in our power to tramp out the pestilence, as has been twice done by the Health Board of this city. Cholera has ceased to be a fearful word, and so also has diphtheria. Not so ten years ago, when it laid its cruel hand upon so many of our little ones, and withdrew them from our sight. Our city enjoys a wonderful immunity from disease, and medical intelligence applies the corrective to the evil and holds it in abeyance. If there were no other proof of general medical progress the good that the Health Board has done is sufficient. It has prevented the spread of epidemics which would have carried away thousands, and has lessened the number of incidental sick.

Twenty years ago the privileges for clinical experience were but just commencing to be appreciated, and the advantages for study were only beginning to be offered in the hospitals and dispensaries. Bellevue was about that time opened to the student, and its vast aggregate of disease made the subject of accurate clinical observation. The island hospitals in the East River, filled with a variety of disease, are now open for clinical study. The dispensaries, covering all of the inhabited part of the island of Manhattan, are continually filled with patients, and the able corps of physicians, both out-door and in the class rooms, are willing to explain peculiarities, and to teach methods of making diagnosis, and how to successfully treat each case. The great abundance of means for the study of diseases and their treatment in the public institutions of New York, render it a place of unsurpassed excellence for the student.

We may not stop to particularize those medical gentlemen in middle life in our midst who have done and are still doing so much, with such honorable courage and skill, whose names we speak with pride, whose reputation and character we emulate, but will turn to the young men of the profession who are just coming on the scene of action, and we are filled with admiration and hope; for, great as has been the progress of the last twenty years, we have the promise of far more in the next decade, and we are assured that the energy, the indomitable perseverance, and the excellent preparation of these gentlemen will not disappoint us.

Medicine comes down to us from the past honored by the splendor of great names and venerable in its antiquity; yet in every age it has been the first to lead in progress for the benefit of mankind. From the days of Aristotle human thought wound itself up in theories, like the worm in its silken shell, till the time of Bacon; when, bursting its prison house, it came forth a thing of beauty and motion, soaring higher and higher in the clear sunlight of eternal truth. The great mind of Bacon, warmed to the study of medicine as the true path to the secret store-house of nature. Harvey was his physician and his friend. Bacon taught us to think, Harvey taught us to accurately observe—qualities of the mind indispensable to medical progress. Knowledge has accumulated; methods and means of investigation have multiplied; average life is extended, and the promise is that in the immediate future the advance in knowledge of hygiene, health, disease and remedies, will enable us to extend further the life of man, relieve him from suffering and disability, and make it possible for him to be both happy and good.

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